

Amendments to Claims:

This listing of claims will replace all prior revisions, and listings, of claims in the application:

Listing of Claims:

1.-4. (Cancelled)

5. (Currently Amended) [The system according to claim 3,] An exhaust gas measurement system comprising:

a probe defining a sample exhaust gas passageway for collecting exhaust gas;

a stainless steel canister fluidly connected to said probe for storing the exhaust gas;

a pump fluidly interconnected between said probe and said canister for transferring the exhaust gas from said probe to said canister;

a pressure mass flow controller fluidly interconnected between said probe and said canister producing a exhaust gas flow measurement corresponding to the flow of the exhaust gas from said probe to said canister;

a temperature sensor for sensing a temperature of the exhaust gas proximate to said pressure mass flow controller, said temperature sensor correcting said exhaust gas flow measurement based upon said temperature;

a pressure sensor for sensing a pressure of the exhaust gas proximate to said pressure mass flow controller, said pressure sensor correcting said exhaust gas flow measurement based upon said pressure;

a heating device heating said stainless steel canister and said pressure mass flow controller;

wherein an exhaust gas analyzer is fluidly connected to said canister;

wherein a second pump is fluidly interconnected between said canister and said analyzer for transferring the stored exhaust gas from said canister to said analyzer; and

wherein a second pressure mass flow controller fluidly is interconnected between said canister and said analyzer producing a second exhaust gas flow measurement corresponding to the flow of exhaust gas from said canister to said analyzer, further including a second temperature sensor for sensing a second temperature of the exhaust gas proximate to said second pressure mass flow controller, said second temperature sensor correcting said second exhaust flow measurement based upon said second temperature, and a second pressure sensor for sensing a second pressure of the exhaust gas proximate to said second pressure mass flow controller, said second temperature sensor correcting said second exhaust flow measurement based upon said second pressure.

6. (Original) The system according to claim 5, wherein said heating device heating said second pressure mass flow controller.

7. (Original) The system according to claim 6, wherein said heating device heats said second pressure mass flow controller to approximately 191°C.

8.-18. (Cancelled)

19. (Currently Amended) A method of measuring products of combustion in exhaust gases comprising the steps of:

a) _____ sampling exhaust gases from an exhaust source;
b) _____ pumping the exhaust gases to a canister;
c) _____ measuring the amount of exhaust gases entering the canister with a pressure mass flow controller; and

d) _____ heating the canister to a desired temperature to prevent condensation of a portion of the products of combustion;

e) _____ pumping the exhaust gases from the canister to an analyzer;

f) _____ determining the portion of the products of combustion with the analyzer; and

[The method according to claim 17, further including step] g) measuring the amount of exhaust gases flowing to the analyzer with a second pressure mass flow controller.

20. (Original) The method according to claim 19, wherein step g) includes measuring a second temperature of the exhaust gases proximate to the second pressure mass flow

controller and adjusting the second mass flow controller to more accurately measure the amount of exhaust gases in response to the measured second temperature.

21. (Original) The method according to claim 19, wherein step g) includes measuring a second pressure of the exhaust gases proximate to the second pressure mass flow controller and adjusting the second mass flow controller to more accurately measure the amount of exhaust gases in response to the measured second pressure.

22. (Original) The method according to claim 19, wherein step d) includes heating the second mass flow controller to approximately 191°C.